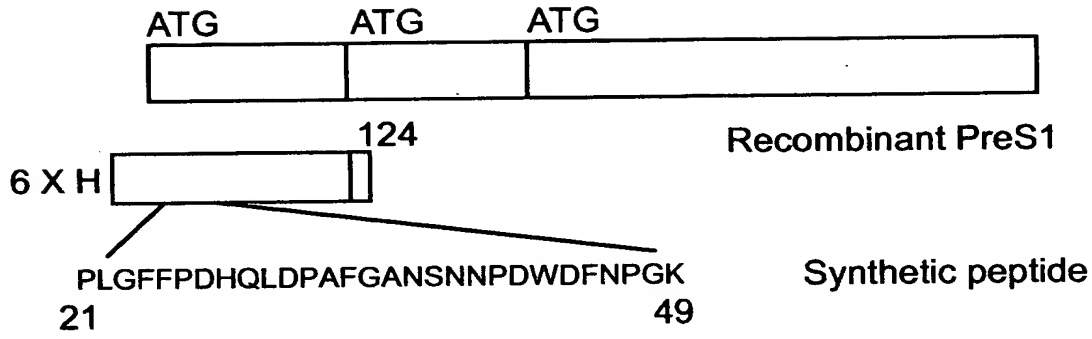


Fig. 1a

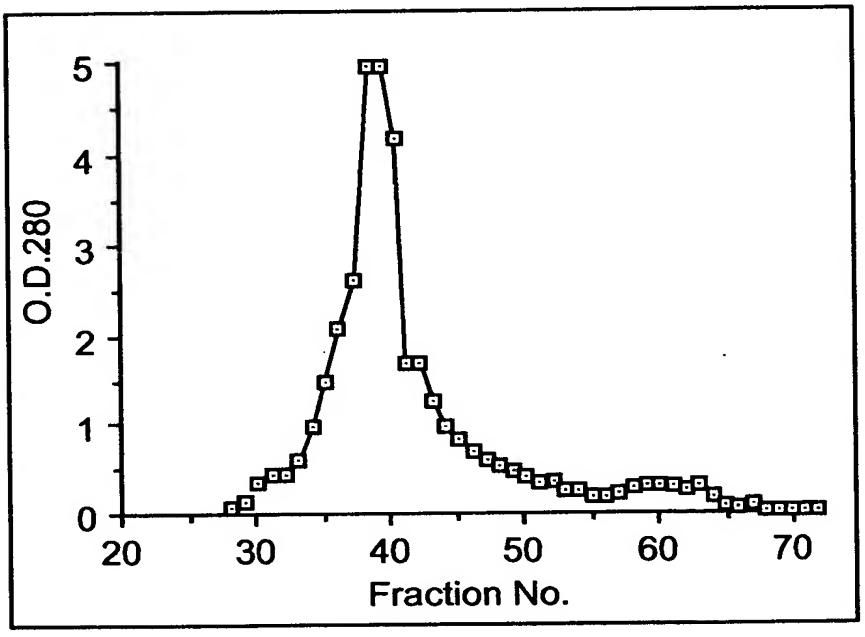


Fig. 1b

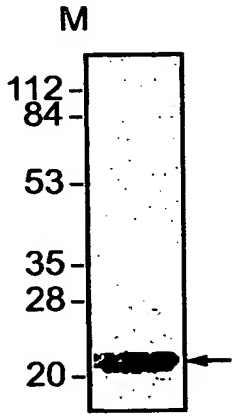


Fig. 1c

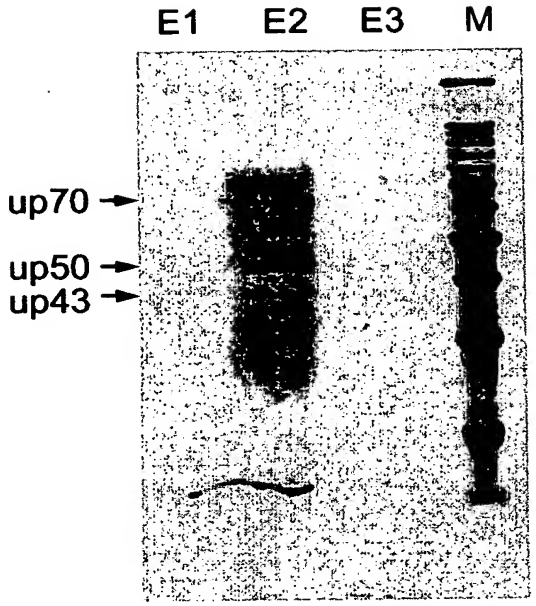

E1
E2
E3
M
up70
up50
up43

Fig. 2

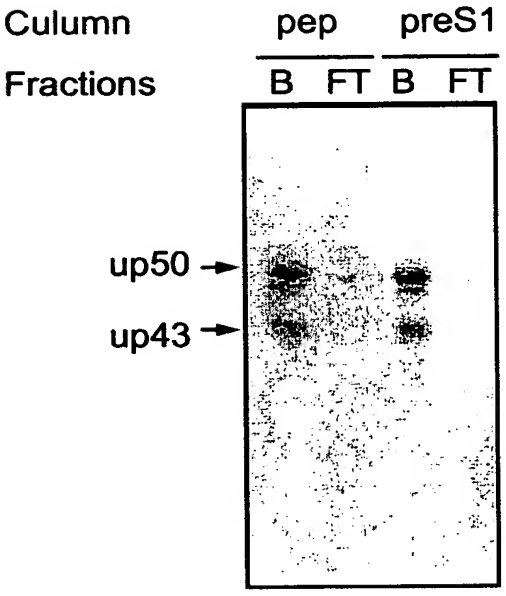

Culumn
pep
preS1
Fractions
B
FT
B
FT
up50
up43

Fig. 3

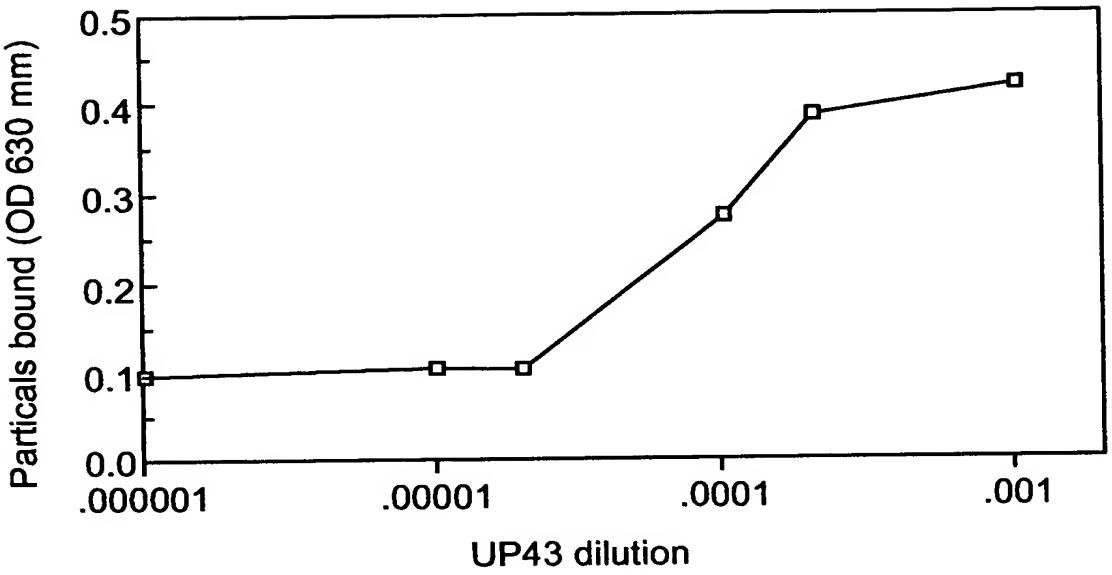

Particals bound (OD 630 mm)
0.5
0.4
0.3
0.2
0.1
0.0
.000001
.00001
.0001
.001
UP43 dilution

Fig. 4

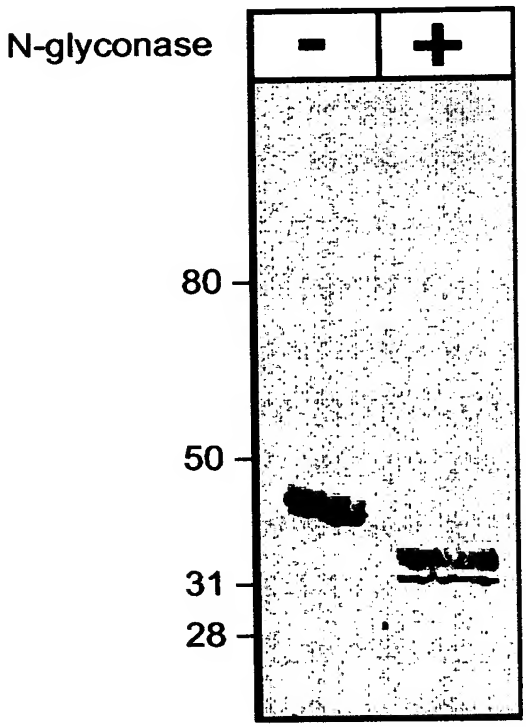

N-glyconase
-
+
80
50
31
28

Fig. 5

human	s1-5	MATSGVLPGG	GFVASAAAVA	GPEMQTGRNN	FVIRRNPADP	QRIPSNPSHR
human	s1-5	IQCAAGYEQS	EHNVCQDIDE	CTAGTHNCRA	DQVCINLRGS	FACQCPPGYQ
human	s1-5	KRGEQCVDID	ECTIPPYCHQ	RCVNTPGSFY	CQCSPGFQLA	ANNYTCVDIN
human	s1-5	ECDASNQCAQ	QCYNILGSFI	CQCNQGYELS	SDRLNCEDID	ECRTSSYLCQ
human	s1-5	YQCVNEPGKF	SCMCPQGYQV	VRSRTCQDIN	ECETTNECRE	DEMCWNYHGG
human	s1-5	FRCYPRNPCQ	DPYILTPENR	CVCPVSNAMC	RELPQSIVYK	YMSIRSDRSV
up43					K	YMSIRS
human	s1-5	PSDIFQIQAT	TIYANTINTF	RIKSGNENGE	FYLRQTSPVS	AMLVLVKSLS
up43				KSGNENGE	FYLR	AMLVLVKSL
human	s1-5	GPREHIVDLE	MLTVSSIGTF	RTSSVLRLTI	IVGPFSF	

Fig. 6

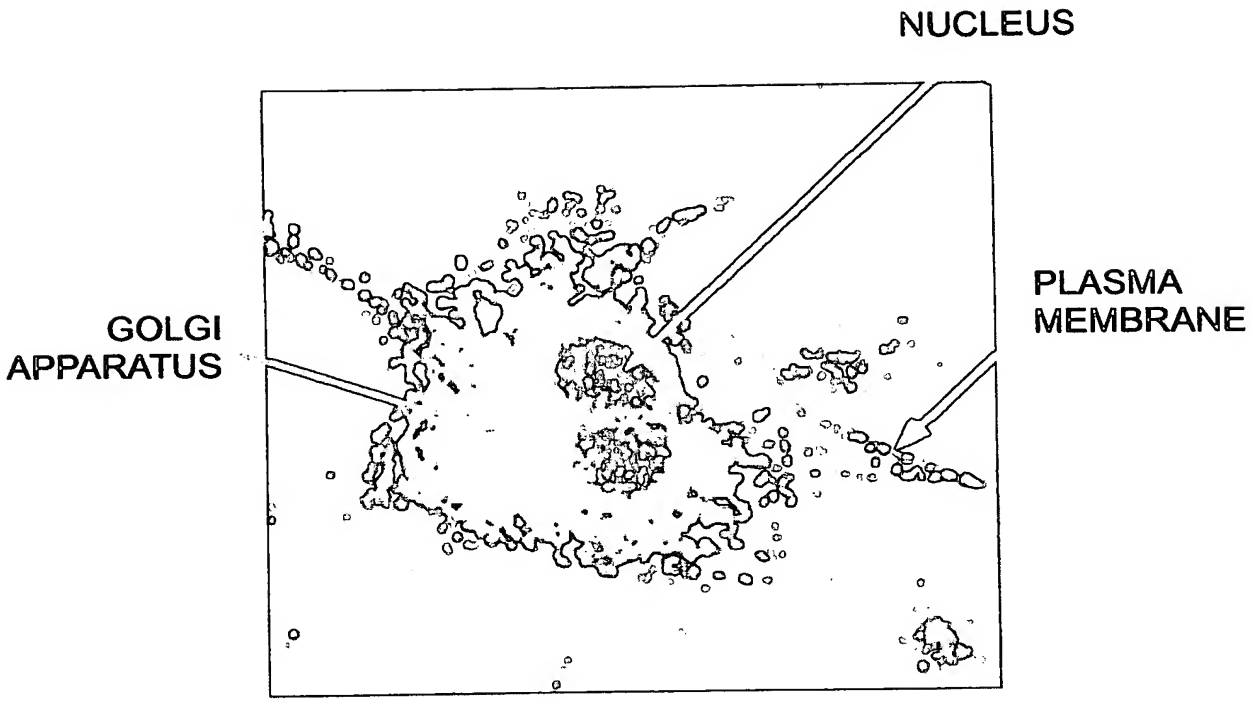


Fig. 7

UP50

MPGIKRILTV TILALCLPSP GNAQAQCTNG FDLDRQSGQC LDIDECRTIP

EACRGDMMCV NQNGGYLCHS RTNPVYRGPY SNPYSTPYSG PYPAAAPPLS

APNYPTISRP LICRFGYQMD ESNQCVDVDE CATDSHQCNP TQICINMKGG

YTCSCTDGYW LLEGQCLDID ECRYGYCQQL CANVPGSYSC TCNPGFTLNE

DGRSCQDVNE CATENPCVQT CVNTYGSFIC RCDPGYELEE DGVHCSDMDE

CSFSEFLCQH ECVNQPGTYF CSCPPGYILL DDNRSCQDIN ECEHRNHTCN

LQQTCYNLQG GFKCIDPIRC EEPYLRISDN RCMCPAENPG CRDQPFTILY

RDMDVVSGRS VPADIFQMQA TTRYPGAYYI FQIKSGNEGR EFYMRQTGPI

SATLVMTRPI KGPREIQLDL EMITVNTVIN FRGSSVIRLR IYVSQYPF

Fig. 8

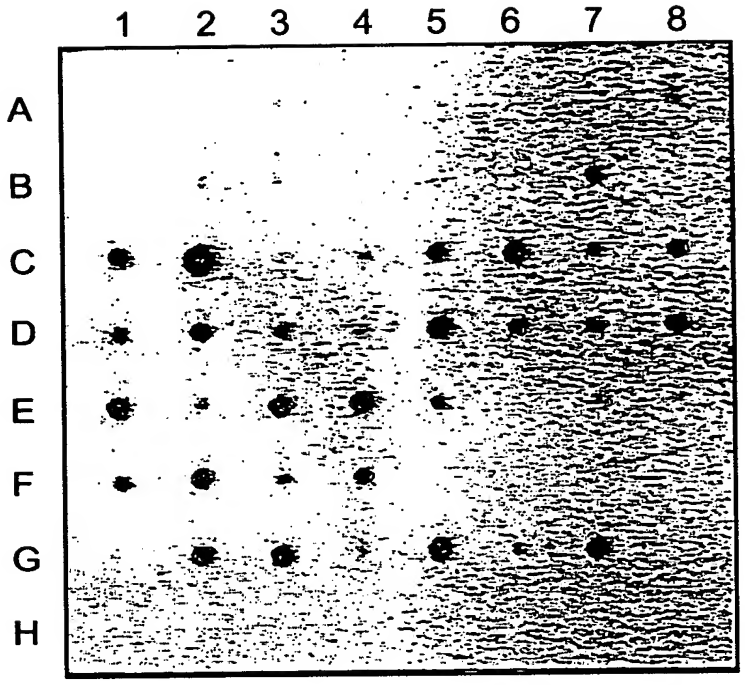


Fig. 9a

	1	2	3	4	5	6	7	8
A	whole brain	amygdala	caudate nucleus	cere-bellum	cerebral cortex	frontal lobe	hippo-campus	medulla-oblongata
B	occipital lobe	putamen	substantial nigra	temporal lobe	thalamus	sub-thalamic nucleus	spinal cord	
C	heart	aorta	skeletal muscle	colon	bladder	uterus	prostate	stomach
D	testis	ovary	pancreas	pituatary gland	adrenal gland	thyroid gland	salivary gland	mammary gland
E	kidney	liver	small-intestine	spleen	thymus	peripheral leukocyte	lymph node	bone marrow
F	appendix	lung	trachea	placenta				
G	fetal brain	fetal heart	fetal kidney	fetal liver	fetal spleen	fetal thymus	fetal lung	
H	yeast total RNA 100 ng	yeast cRNA 100 ng	E. Coli rRNA 100 ng	E. Coli DNA 100 ng	Paly (HA) 100 ng	human C DNA 100 ng	human DNA 100 ng	human DNA 500 ng

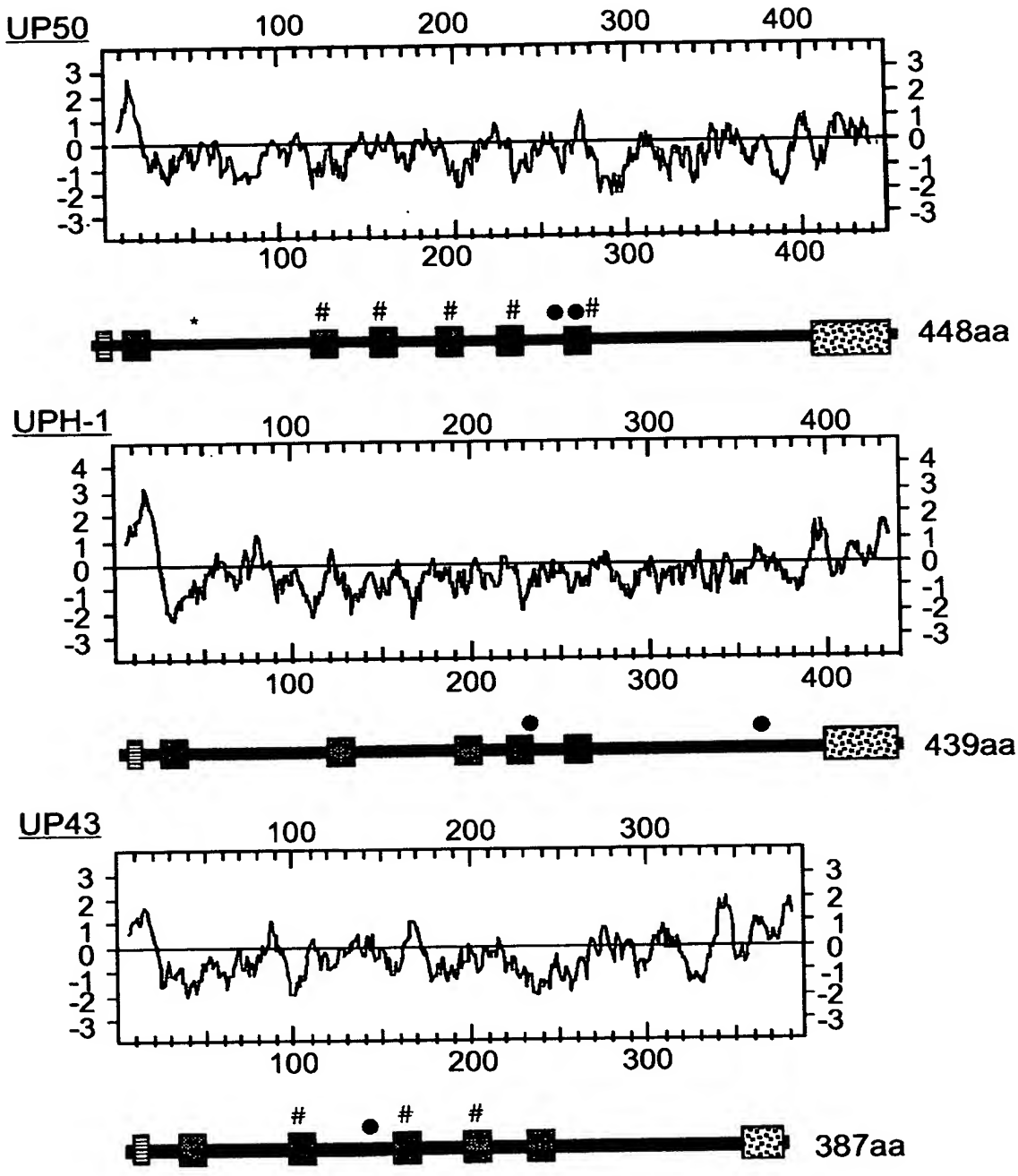
Fig. 9b

```
          1                                                        50
UPH1      MLPCASCLPG SLLLWALLLL LLGSASPQDS EEPDSYTE..... ...CTDGYTQTA
UP50      MPGIKRILTV TILALCLPSP GNAQAQCTNG FDLDRQSG..... QCLDIDECRT
UP43      MLKALFLTML TLALVKSQDT EETITYTQCT DGYEWDPVRQ QCKDIDECDI

          51                                                      100
UPH1      NCRDVNECLT IPEACKGEMK CINHYGGYLC LPRSAAVI.N DL.....
UP50      ..... IPEACRGDMM CVNQNGGYLC HSRTNPVY.R GPYSNPYSTP
UP43      ..... VPDACKGGMK CVNHYGGYLC LPKTAQIIVN NEQPQQETQP

          101                                                     150
UPH1      ..... ..... ..... ..... .....
UP50      ..... ..... .....YSGPY PAAAPPLSAP NY.....
UP43      AEGTSGATTG VVAASSMATS GVLPGGGFVA SAAAVAGPEM QTGRNNFVIR

          151                                                     200
UPH1      HGEGPPPPVP PVNTQPLP-- TGYEPDDQDS CVDVDECAQA LHDCRPSQDC
UP50      ..... PTISRPLICR FGYQMDESNQ CVDVDECATD SHQCNPTQIC
UP43      RNPADPQRIP SNPSHRIQCA AGYEQSEHNV CQDIDECTAG THNCRADQVC

          201                                                     250
UPH1      HNLPGSYQCT CPDGYRKIGP ECVDIDECRY ...RYCQHRCVN LPGSFRCQCE
UP50      INMKGGYTCS CTDGYWLLEG QCLDIDECRY ...GYCQQLCAN VPGSYSCTCN
UP43      INLRGSFACQ CPPGYQKRGE QCVDIDECTI PPYCHQRCVN TPGSFYCQCS
```

Fig. 10

```
          251                                                        300
UPH1      PGFQLGPNNR SCVDVNECDM GAPCEQRCFN SYGTFLCRCH QGYELHRDGF
UP50      PGFTLNEDGR SCQDVNECAT ENPCVQTCVN TYGSFICRCD PGYELEEDGV
UP43      PGFQLAANNY TCVDINECDA SNQCAQQCYN ILGSFICQCN QGYELSSDRL

          301                                                        350
UPH1      SCSDIDECSY SSYLCQYRCV NEPGRFSCHC PQGYQLL.AT RLCQDIDECE
UP50      HCSDMDECSF SEFLCQHECV NQPGTYFCSC PPGYILLDDN RSCQDINECE
UP43      NCEDIDECRT SSYLCQYQCV NEPGKFSCMC PQGYQVVR...S RTCQDINECE

          351                                                        400
UPH1      SGAHQWSEAQ TCVNFHGGYR CVDTNRCVEP YIQVSENRCL CPASNPLCRE
UP50      HRNHTCNLQQ TCYNLQGGFK CIDPIRCEEP YLRISDNRCM CPAENPGCRD
UP43      T...TNECREDE MCWNYHGGFR CYPRNPCQDP YILTPENRCV CPVSNAMCRE

          401                                                        450
UPH1      QPSSIVHRYM TITSEAERPA DVFQIQATSV YPGAYNAFQI RAGNSQGDFY
UP50      QPFTILYRDM DVVSGRSVPA DIFQMQATTR YPGAYYIFQI KSGNEGREFY
UP43      LPQSIVYKYM SIRSDRSVPS DIFQIQATTI YANTINTFRI KSGNENGEFY

          451                                                        500
UPH1      IRQINNVSAM LVLARPVTGP REYVLDLEMV TMNSLMSYRA SSVLRLTVFV
UP50      MRQTGPISAT LVMTRPIKGP REIQLDLEMI TVNTVINFRG SSVIRLRIYV
UP43      LRQTSPVSAM LVLVKSLSGP REHIVDLEML TVSSIGTFRT SSVLRLTIIV


          501
UPH1      GAYTF
UP50      SQYPF
UP43      GPFSF
```

Fig. 10 (Cont.)



Transmember Domain

\# Aspartic Acid and Aspargine Hydroxylation Site.

Signal Peptide

* Cell Attachment Sequence

Glycosylation Site

Fig. 11